REMARKS

Claims 1 and 3-17 are pending. Claim 1 is amended herein to incorporate the features of claim 2. Claim 2 has been cancelled without prejudice or disclaimer.

Applicants' Response to the Claim Rejections under 35 U.S.C. §103(a)

Claims 1-3 and 6-16 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP 2002-182423 (hereinafter JP '423) in view of U.S. Patent No. 5,827,632 to *Inaba et al.* (hereinafter *Inaba*).

In response thereto, applicants respectfully submit that the present invention as now claimed is not obvious in light of the combination of references for at least the reasons that they do not provide for all the features of the present claims, nor is there any reason whereby a skilled artisan could derive the invention based on their teachings and the general skill in the art.

Specifically, the combination of JP '423 and Inaba at least fail to disclose or provide any reason whereby a skilled artisan could obtain a silica fine particle with Dv50/Dv10 of 2 or more.

In regard to the feature of the present invention that a silica fine particle (A) has a Dv50/Dv10 of 2 or more, the rejection relies upon the disclosures of Inaba at col. 16, lines 25-33 and Fig. 1. JP '423 is not cited in regard to this feature as it contains no comparable disclosure. Specifically, page 3 bridging page 4 of the Office Action asserts that since 6% of the particles have a particle diameter between 10 and 20 nm in Inaba and an additional 4% have a particle diameter between 20 and 25 nm, the 10% of the particles having the lowest particle diameters have diameters in a range of from 10 to 25 nm. Consequently, a "reasonable mean particle

diameter" is calculated to be 17.5 nm. Further, the Office asserts that Inaba teaches Dv50 is 40nm; and hence, D50/D10 = 40/17.5 = 2.3.

As set forth in the present specification at page 6, lines 2-10 and in accord with their plain and ordinary meaning within the art, the Dv50/Dvl0 of the external additive defined in the present invention means a ratio of Dv50 to Dvl0 (Dv50/Dvl0) in which Dvl0 represents a particle diameter at which a volume cumulative total from small particle diameter side is 10% and Dv50 similarly represents a particle diameter at which the mentioned volume cumulative total is 50%. That is, Dvl0 defined in the present invention represents a particle diameter of the external additive when the volume accumulated from the smaller particle diameter side reaches 10%, and Dv50 represents a particle diameter when the volume accumulated from the smaller particle diameter side reaches 50%.

However, the Office Action at pages 3-4, as detailed above, identifies Dvl0 as the average particle diameter of particles having particle diameters within the range of from the lower limit to the particle diameter when the volume accumulated from the smaller particle diameter side reaches 10%, and that Dv50 is an average particle diameter. Hence, Inaba as interpreted by the Office, does not disclose at least this feature of the present invention as set forth in amended claim 1. Further, Inaba does not disclose nor provide a reason to adopt this feature when interpreted in accordance with the present specification.

The Dv50/Dvl0 of hydrophobic silica fine particles disclosed in Inaba is determined as follows based on the disclosures of Fig. 1 and col. 16, lines 25-33. The rates of hydrophobic silica fine particles having particle diameters of 10 to 20 nm, 20 to 30 nm, and 30 to 40 nm are

6%, 22%, and 30%, respectively. Hence, the rate of hydrophobic silica fine particles having diameters of 10 to 30 nm is 28%. Consequently, the Dvl0 lies in the range of from 20 to 30 nm. That is, the broadest range of the Dvl0 is from 20 nm to 30 nm. The rate of hydrophobic silica fine particles having diameters of 10 to 40 nm is 58%. Consequently, the Dv10 is larger than 30 nm and smaller than 40 nm. Therefore, the Dv50/Dvl0 is higher than 1.0 (in the case of that both Dvl0 and Dv50 are close to 30 nm) and lower than 2.0 (in the case of that Dvl0 is close to 20 nm and Dv50 is close to 40 nm). Thus, the Dv50/Dvl0 of the hydrophobic silica fine particles of Inaba cannot satisfy the requirement of the present invention that Dv50/Dvl0 is 2 or more. Further, Inaba, even in light of JP '423, does not provide any reason for a skilled artisan to derive this feature.

In the present invention, a toner causing less fog, exhibiting excellent resolution and cleaning properties, and also causing less filming can be obtained by controlling the Dv50/Dvl0 of an external additive within a specific range. The Description of Inaba maintains that the toner exhibits stability even in continuous formation of a large amount of images. However, there is no disclosure of a toner causing less fog, exhibiting excellent resolution and cleaning properties, and also causing less filming, which are achieved in the toner of the present invention. Further, there is no other viable reason provided by Inaba to otherwise alter the silica fine particles to derive the presently claimed feature. Accordingly, the present invention has advantageous effects that are not derivable from JP '423 in combination with Inaba.

Wherefore, applicants respectfully submit that parent claim 1 and its respective dependent claims are not obvious in view of the combination of JP '423 and Inaba under 35 U.S.C. §103.

Claims 4-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP '423 in view of *Inaba* as applied to claims 1-3 and 6-16, and further in view of JP 2003-029450 (hereinafter JP '450).

Claim 17 is rejected under 35 U.S.C. §103(a) as being unpatentable over JP '423 in view of *Inaba* as applied to claims 1-3 and 6-16, and further in view of U.S. Patent Application Publication No. 2003/0027070 to *Niwa* (hereinafter *Niwa*).

Applicants respectfully submit that by addressing the rejection of parent claim 1 as detailed above, likewise the rejections of claims 4, 5 and 17 should be considered addressed by nature of their dependency.

In view of the aforementioned amendments and accompanying remarks, Applicant submits that the claims, as herein amended, are in condition for allowance. Applicant requests such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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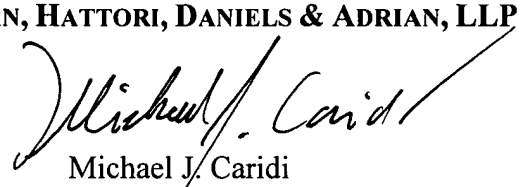

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